Manitoba Agricultural Review 1990

Manitoba
Agriculture
Economics

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MANITOBA AGRICULTURAL REVIEW

INTRODUCTION

The major focus of this publication is on primary agriculture. However, farming obviously cannot exist in isolation. It is an integral part of the total agriculture-food system which also includes manufacturing, processing, transportation, distribution and wholesale/retail trade. Agriculture makes an important contribution to Manitoba's overall economic activity, both in its production and consumption. Between 1986 and 1990, agriculture and related industries contributed an average of 12.5 percent to the provincial Gross Domestic Product. For every dollar of net income produced in Manitoba, $1.71 is generated in the overall Manitoba economy. In Manitoba, one job in eight depends on agricultural production. In addition to stimulating local employment, agriculture in Manitoba is directly responsible for thousands of jobs in other parts of Canada.

PRIMARY AGRICULTURE

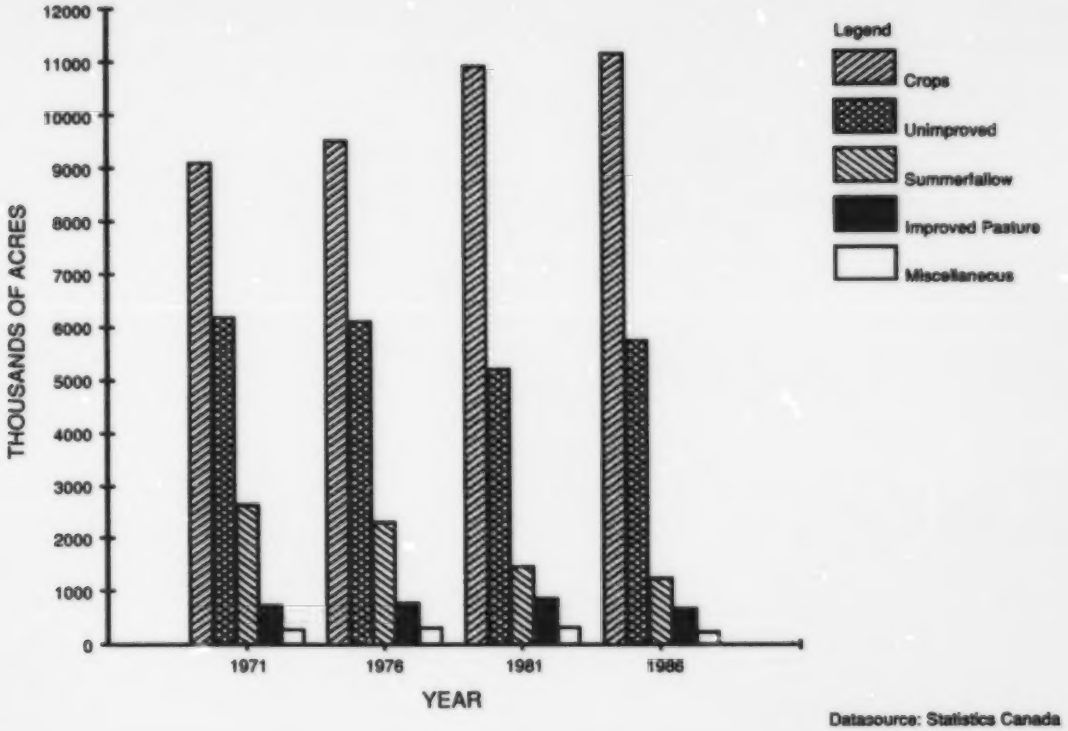
LAND RESOURCE

Manitoba extends 1,225 kilometres (761 miles) from the U.S. border to the Northwest Territories. Its area is 67.6 million hectares (167 million acres). The total land area is 54.8 million hectares (135.5 million acres), of which 14.6 million hectares (36.2 million acres) or 26.7 percent have some agricultural potential. Over 9.6 million hectares (23.6 million acres) of this area are nonorganic soils; 5.5 million hectares (13.5 million acres) of these are suitable for sustained annual production of cultivated crops. Land use for agriculture in 1986 (both improved and unimproved land) totalled 7.7 million hectares (19.1 million acres), or over 50 percent of total lands with agricultural potential. In 1990, 4.8 million hectares (11.8 million acres) were seeded to crops, 0.4 million hectares (1.0 million acres) were summerfallowed and 0.3 million hectares (0.7 million acres) were improved pasture lands.

Further opportunity to expand the agricultural land resource base through greater use of organic soil areas also exists. Approximately 5.1 million hectares (12.6 million acres) of organic soils are in the non-permafrost or fringe agricultural zone of Manitoba. Potentially 0.6 million hectares (1.5 million acres) of these soils could be used for grain or special crop production. Another 0.2 million hectares (0.5 million acres) of organic soils could be easily developed and brought into forage crop production. About 0.2 million hectares (0.5 million acres) of organic soils are currently under cultivation.

GRAPH 1

LAND USE 1971 – 1986



Datasource: Statistics Canada

FARMS AND FARMERS

In 1986 Manitoba had 27,336 farms with sales of $250 or more. The average farm size was 283 hectares (700 acres). The number of farms declined by 7.2 percent between 1981 and 1986, reflecting the continued trend towards farm consolidation. In 1986, 63 percent of Manitoba farmland was operator-owned, while 37 percent was rented land. The area of rented land had increased by 350 000 hectares (866,000 acres) or 14 percent since 1981.

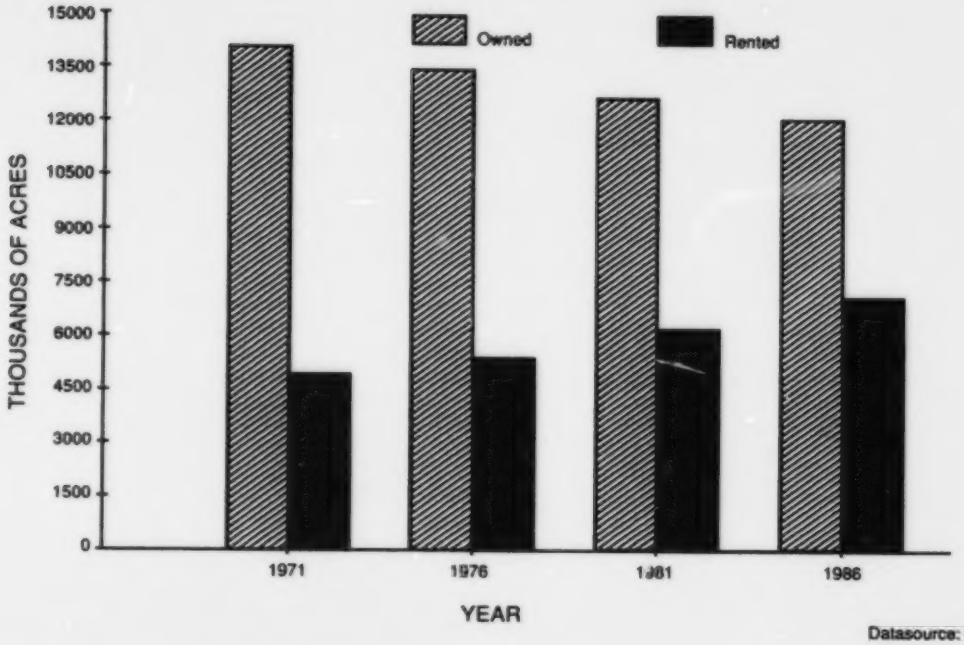
The 1986 Census of Agriculture showed that 22 percent of farm operators were less than 35 years old, a decrease of three percentage points from the 1981 level. Eleven percent were 35 to 39, 33 percent were 40 to 54, and over 33 percent were 55 years and over. In 1981, 30 percent of farmers were over 55 years. Although the total number of farm operators declined between 1981 and 1986, the number of producers with sales of $10,000 or more was the same in both years. The total farm population in 1986 was down 12 percent from the 1981 level. Approximately one Manitoban in 13 lived on a farm in 1986 compared with one in ten in 1981.

The 1986 Census showed that Manitoba farmers hired a total of 342,706 weeks of full-time and part-time labour. This represents a 38.3 percent increase in the number of weeks of hired labour since 1981, and a 28.7 percent increase in the number of farms reporting hired labour. Over 51 percent of hired help was employed on a part-time basis. In general, a shift away from year-round hired labour to more seasonal task-specific term employment was evident.

In 1986, farm operators worked 1,536,485 days off the farm, a decrease of 4.3 percent from 1981. During this same period, although the number of farms where the operator reported off-farm employment decreased by 5.7 percent to total 9,714 in 1986, the proportion of all farms with the operator reporting off-farm work increased from 35.0 percent in 1981 to approximately 35.5 percent in 1986. Off-farm employment by Manitoba farmers is common and could continue to expand as labour requirements of the farm decline and as economic conditions pressure producers to find supplementary sources of income. Beginning farmers may also use this as an alternate way of entering full-time farming.

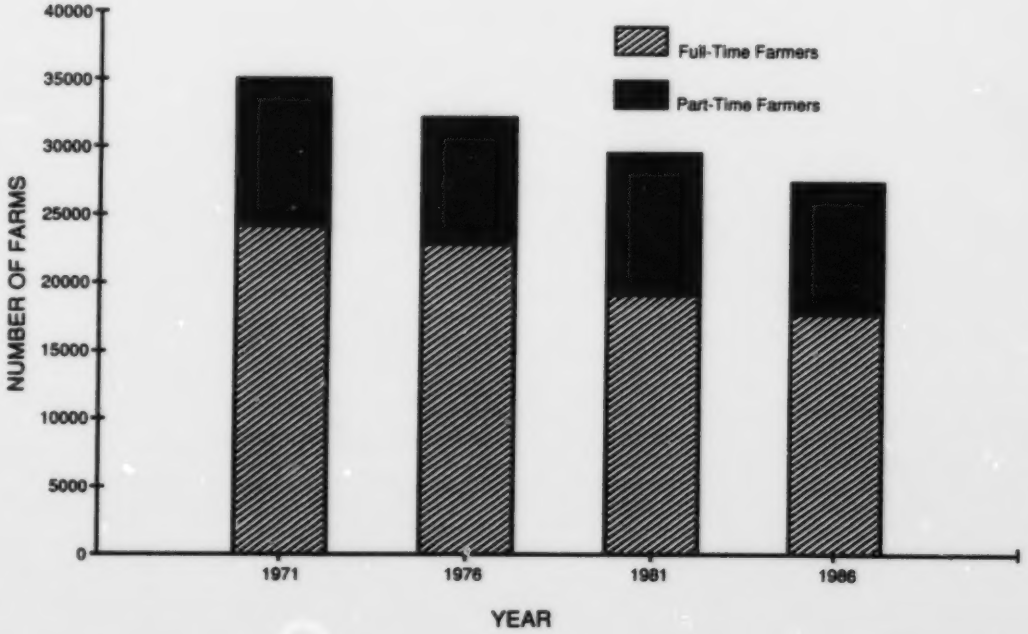
GRAPH 2

TENURE STATUS OF FARMLAND
1971 – 1986



Datasource: Statistics Canada

GRAPH 3 **FARMS CLASSIFIED BY WORK STATUS OF OPERATOR**
1971 – 1986



Datasource: Statistics Canada

FARM INCOMES

Farmers have very little control over the prices they receive for most of the commodities they produce. Changing production costs, dependence on the weather and variable commodity prices make farming a risky business. Realized net farm income (cash flow) in Manitoba increased from $278 million in 1985 to $415 million in 1986 and $455 million in 1987, but decreased to $371 million in 1988, $310 million in 1989 and $145 million in 1990. Preliminary projections indicate that with increased government assistance to producers, farmers will net $186 million in 1991, an increase of 28 percent from a year earlier.

Total net income (net cash income adjusted for inventory change) per farm was $13,900 in 1981. This fell to $1,805 per farm in 1983 and peaked at $19,562 per farm in 1985 due to bumper crops and an inventory build-up. In 1986, total net income averaged $13,839 per farm, due in part to reduced on-farm inventories. Lower grain and oilseed receipts were offset by lower production costs and increased government payments to keep total net income at $13,885 per farm in 1987. Lower cash receipts, reduced on farm inventories and higher operating expenses and depreciation resulted in a drop in net farm income to $5,533 per farm in 1988. The situation improved in 1989 when increased crop receipts and on-farm inventories more than offset higher operating expenses to raise total net farm income to $16,843 per farm. 1990 net income, at $18,500 per farm, was a result of significantly higher on-farm inventories compensating for reduced receipts and higher expenses.

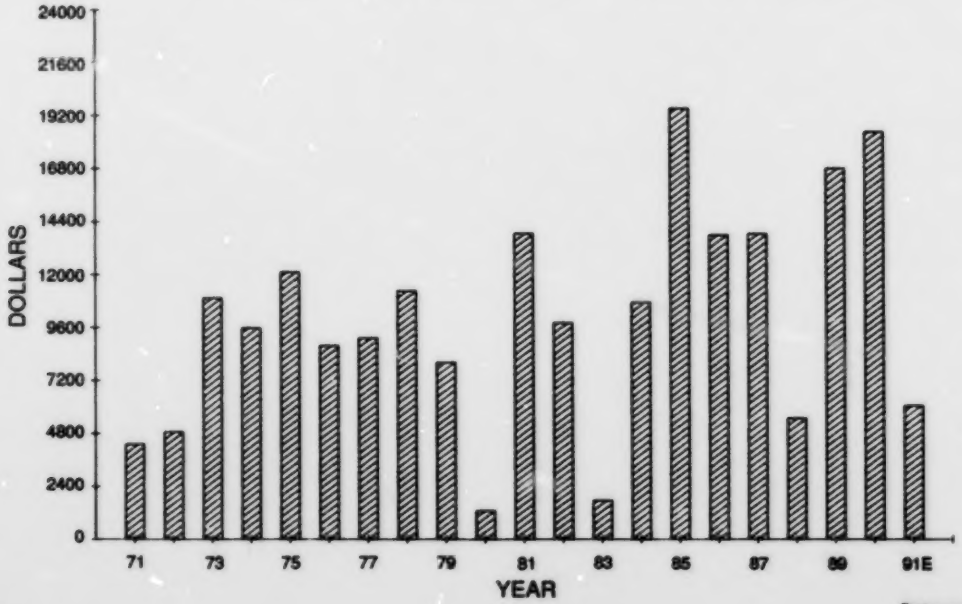
FARM FINANCIAL DIFFICULTIES

According to the 1990 Farm Credit Corporation Survey results, by the end of 1989 some Manitoba farms continued to face serious financial difficulties, but most farms were in a relatively secure financial position. Despite a greater dependence on government program payments and off-farm employment, there has been a general improvement in the overall financial position of Manitoba farms since 1987. The problems of farms in financial difficulty include excessive debt, weak commodity prices and low operating margins as well as inadequate resources and limited employment opportunities.

FARM EFFICIENCY

Improved productivity in all sectors of the food system has greatly increased food production and lowered food prices over the past fifty years. Much of this increased efficiency is due to farmers. Each Manitoba farm now feeds 250 people, five times as many as fifty years ago. In addition, food prices have not increased as much as wages in Manitoba, so a consumer only has to work half as long now as he or she did fifty years ago to buy Manitoba produced meat, milk, eggs, bread and vegetables. In 1990, Manitobans spent only 10.6 percent of their disposable income in food stores.

GRAPH 4 **TOTAL NET INCOME PER FARM 1971 – 1991**



Datasource: Statistics Canada

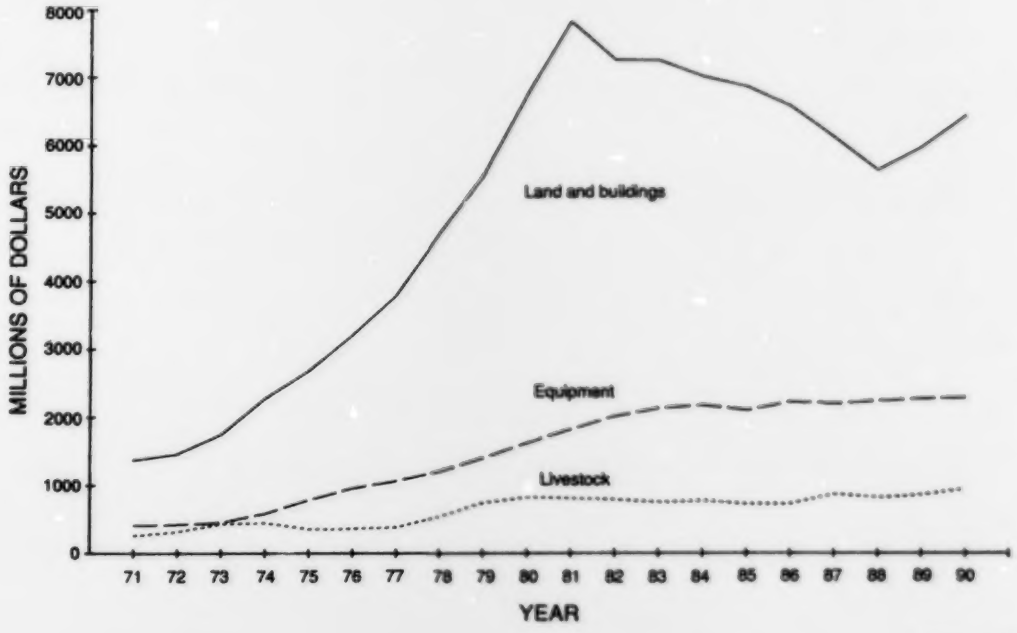
CAPITAL INVESTMENT

The total value of fixed capital used by Manitoba farmers in 1990 was almost $9.7 billion, or $365,400 per farm operation. This included over $6.4 billion (66.5 percent) for land and buildings, $2.3 billion (23.7 percent) for machinery and equipment and over $0.9 billion (9.8 percent) for livestock and poultry. Between 1981, when land values peaked, and 1988, the fixed capital investment in Manitoba agriculture decreased by over 17 percent. However, in 1989 and 1990, capital investment rose by almost 5 percent and over 6 percent respectively.

A noticeable shift has occurred in the distribution of capital investment. Land and buildings now account for 66.5 percent of total investment. This compares with 75 percent in 1981, and 69 percent in 1986 for the same components. The change in the contribution of land to total investment can be attributed to the escalation of land prices in the late 1970s because of increased investment in land, followed by a decrease in land values in the mid-1980s. In 1990, the average value of farm land and buildings in Manitoba was approximately $830 per hectare ($336 per acre), eight percent above the 1989 level of $771 per hectare ($312 per acre). Between 1971 and 1981, capital investment in Manitoba agriculture more than doubled every five years. However, between 1981 and 1988, high real interest rates and low commodity prices reduced capital investment in farming. Farm machinery sales in the province also suffered.

In January 1990, the ratio of Manitoba farm equity to assets was estimated at 0.84. By enterprise type, cash crop, dairy, hog and beef operations had equity to asset ratios of 0.85, 0.76, 0.76 and 0.86 respectively. Manitoba farmers had total assets estimated at $10.77 billion, liabilities of $1.79 billion and a net worth of $8.98 billion. Assuming farm sales are used as a proxy for farm size, then total liabilities as a percentage of total assets increased as farm size (total value of farm sales) increased. This percentage rose from a low of 9.0 percent for small farms (less than $26,500 farm sales) to a high of 20.0 percent for larger farms (farm sales over $88,900).

GRAPH 5 CAPITAL INVESTMENT IN AGRICULTURE 1971 – 1990



Datasource: Statistics Canada

Chartered banks financed 32.4 percent of the total farm debt in Manitoba in 1990. The provincial and federal governments, through agencies such as MACC (Manitoba Agricultural Credit Corporation) and the FCC (Farm Credit Corporation), financed 11.4 and 13.7 percent of the provincial farm debt respectively, while government advanced payment programs accounted for 13.6 percent. Credit unions financed 15.3 percent of farm debt, while personal sources of credit, along with trust and insurance companies, amounted to 13.0 and 0.6 percent respectively.

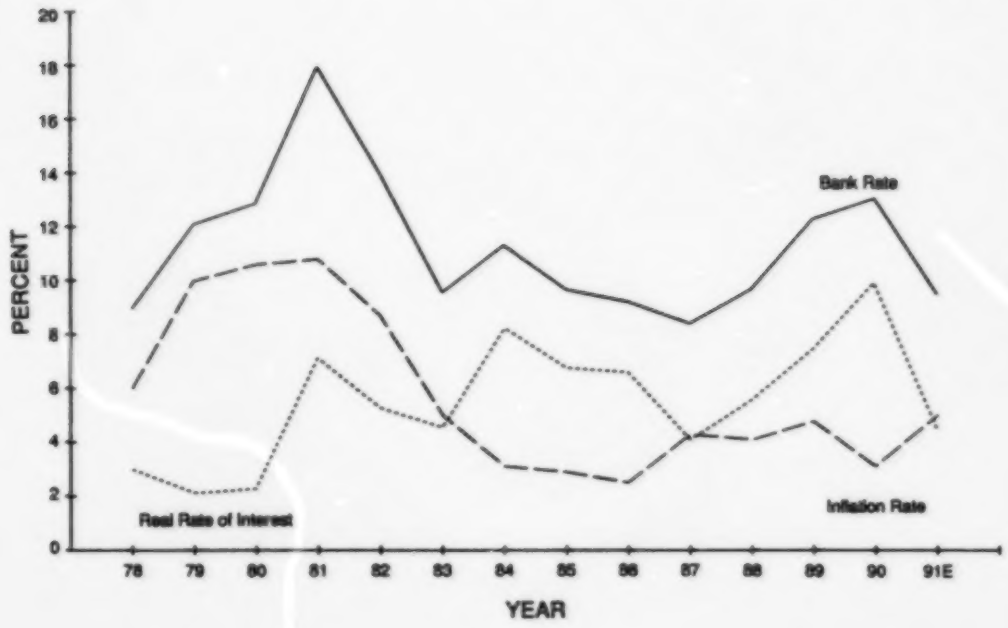
Established farmers who own their land and have low debt-to-asset ratios have survived the recent poor economic situation. However, younger and beginning farmers, including those with low equity, face a more difficult financial situation. New farm operators often have limited finances to become established, and their low equity makes them a high risk to lending institutions. In many cases, MACC is the only source of financing for these higher-risk farmers. There were 490 farmers who had long-term loans totalling $28.5 million (other than for refinancing) approved by MACC for the fiscal year 1990-91. Of these, 95 percent were younger than 40 years.

Because of reduced farm incomes and the relatively high cost of borrowing, farmers with low equity continue to face a serious challenge to continuing their farming operations. Due to increased financial pressure, some farmers have been shifting their debt structure from short and intermediate-term to long-term to ease their repayment burdens. As farms become larger, operating debt financing becomes more important in their cost of operation.

The interest paid on farm debt in 1990 was estimated at $181.6 million. This was up by three percent from 1989. Interest on debt as a percentage of total farm operating expenditure decreased from 17.6 percent in 1981 to 11.5 percent in 1989 and 11.6 percent in 1990. As interest still forms a significant percentage of total farm operating expenditures, it appears that a high equity position could be as important as operating efficiency to assure continued solvency.

GRAPH 6

BANK RATE, INFLATION RATE, REAL RATE OF INTEREST 1978-1991



Datasource: Bank of Canada Review

OTHER AGRICULTURAL EXPENDITURES

Manitoba farmers have substantial operating expenditure requirements for such items as seed, feed, fertilizer and fuel. In 1985, total farm operating expenses (which included operating capital requirements and depreciation) were $1.73 billion. The 1990 total farm operating expense was $1.84 billion, up two percent from 1989 but six percent higher than in 1985. It is estimated that 1991 total farm operating and depreciation expenses will decline to about $1.81 billion.

Fertilizer: The total volume of fertilizer sold went from 627 500 tonnes in 1989 to 658 100 tonnes in 1990. Total fertilizer expenditures in 1990 were estimated at $175.8 million, down by five percent from 1989. Manitoba farmers used two percent less fertilizer between 1985 and 1990, with fertilizer expenditures declining by 19.8 percent over the five-year period.

Pesticides: Total farm pesticide expenditures in 1990 were estimated at $121.6 million, an increase of five percent from 1989, and up by nine percent from the 1985 level.

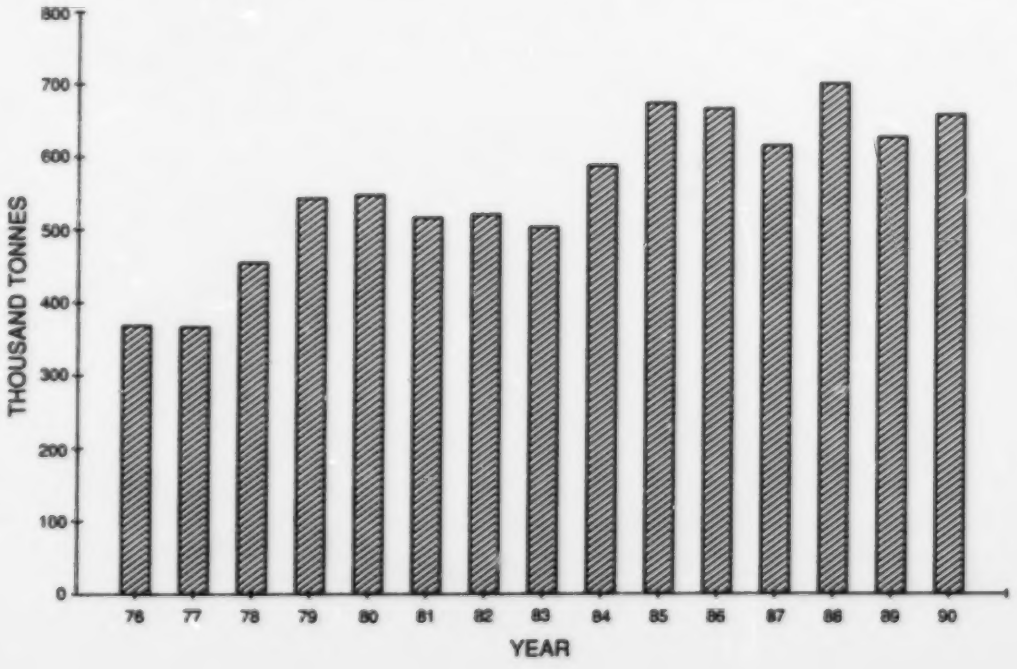
Fuel: The total farm expenditure for diesel, gasoline and lubricants in 1990 was $162.6 million, up by 25.6 percent from 1989. Farm fuel increased from 10.9 percent of total farm operating expenses in 1981 to peak at 13.1 percent in 1983, declined to 8.4 percent in 1989 but rose to 10.4 percent in 1990.

Repairs: In 1985, Manitoba farmers spent $138.1 million on equipment repairs. By 1990, expenditures were estimated at $152.7 million, a five percent increase from 1989.

Buildings: Farm expenditure for building repairs in 1990 was $34.8 million, one percent more than in 1989 and 47 percent above the 1985 level. Many farm buildings have been fully depreciated, but still remain serviceable.

Livestock: Total livestock expenditures by Manitoba farmers in 1990 were estimated at $223.7 million. This was down by nine percent from 1989 expenditures due to lower feed costs and stabilization premiums in 1990. In comparison, the total expenditure in 1985 was $189.6 million. Livestock expenses in 1990 represented 14.3 percent of total operating expenditures compared with 16.1 percent in 1989.

GRAPH 7 **FERTILIZER SALES, 1976 – 90**



Datasource: Western Canada Fertilizer Association

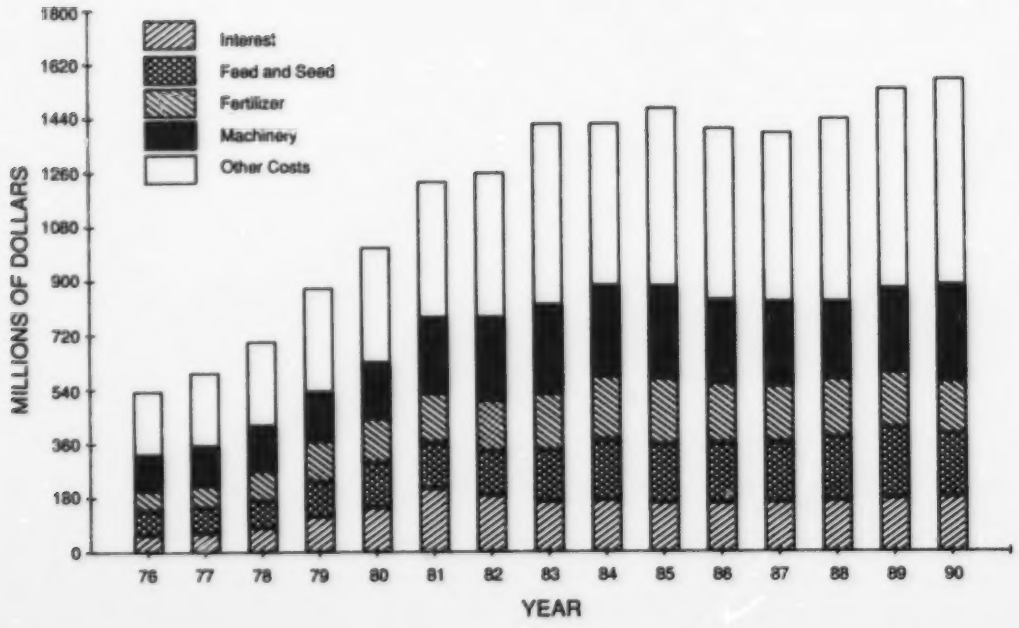
Seed: In 1990, Manitoba farmers spent $45.8 million on seed compared with $48.8 million in 1985 and $48.2 million in 1989. Seed costs in 1990 and 1989 accounted for 2.9 and 3.1 percent of total expenditures respectively.

Other Expenditures: Other farm expenditures include taxes, wages, rentals, insurance, electricity, telephone, etc. Of the total $1.56 billion of farm expenditures in 1990 (excluding depreciation), other expenditures amounted to $465.6 million or 29.8 percent of the total. This increase of three percent from 1989 was mainly due to increases in property taxes, rent, wages, utilities and business insurance premiums in 1990. In 1985, other expenditures accounted for $413.5 million, or 28.1 percent of the total.

AGRICULTURAL PRODUCTION

Manitoba's farm cash receipts were estimated at $1.97 billion in 1990, a six percent decrease from the previous year. Over 52.1 percent of these receipts were derived from crop production, while 39.3 percent came from livestock production, including the production of honey, fur, forestry products and P.M.U. operations. The remaining 8.6 percent came from Crop Insurance payments, Tripartite Stabilization payments, the Crop Loss Compensation Program and other supplementary payments.

GRAPH 8 **FARM CASH AND OTHER EXPENSES 1976 – 1990**



Datasource: Statistics Canada

CROPS

Although southern Manitoba has the climate and soil to grow a wide range of crops, the traditional **grain crops** of **wheat** and **barley** occupied over 59 percent of the 4.8 million hectares of cropped area in the province in 1990. Together, these two crops contributed about 40 percent of total farm cash receipts in the early 1980s. However, low grain prices caused this contribution to decline to one third in 1985 and 1986 and less than one quarter in 1987, 1988 and 1989. Greatly improved crop yields in 1990 raised the contribution to a third, despite continued low grain prices. Wheat production rose to 5.9 million tonnes in 1990, up by over 44 percent from 1989, while barley production increased by 30 percent to 2.0 million tonnes.

Manitoba produces other grain crops, such as **oats**, **rye** and **mixed grains**. These crops occupied 295 400 hectares in 1990.

Flaxseed has been a relatively important crop since the 1940s, but other **oilseed crops**, such as canola and sunflowers have gained prominence since the early 1970s. The province produced 45 percent of Canada's flaxseed, 91 percent of the national sunflowerseed crop and 15 percent of the canola crop in 1990. The area planted to **flaxseed** increased by 14 percent to 324 000 hectares in 1990, while the flaxseed crop increased to 422 000 tonnes, up by 91 percent from the 1989 crop.

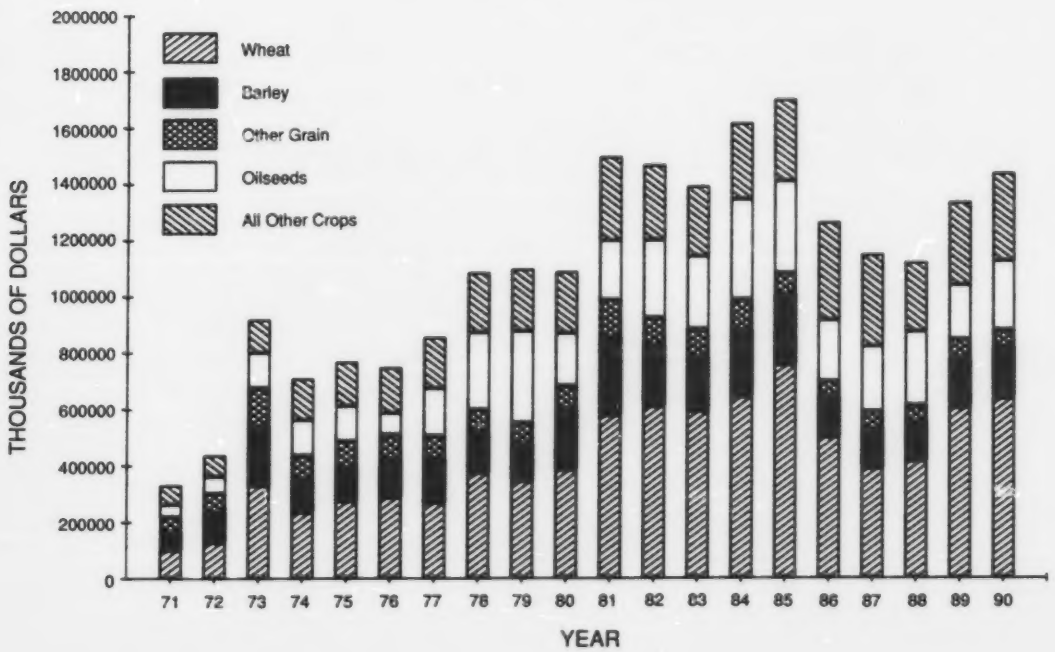
Canola production peaked at 635 000 tonnes in 1985, but a record area, 627 000 hectares, was planted to canola in 1988. As a result of declining prices, the seeded area decreased to 384 000 hectares in 1990, but production rose by 25 percent from the 1989 level to 499 000 tonnes.

In 1979 Manitoba's **sunflower** acreage peaked at 153 800 hectares. However, in recent years, lower prices and problems due to weather, disease and insects have meant only 58 700 hectares were planted in 1990. 1990 sunflowerseed production was estimated at 104 300 tonnes, only 50 percent of the 1979 production, but up by 66 percent from 1989.

The mix of crops and area seeded each year depends, to a large extent, on anticipated market prices relative to production costs. The area seeded to wheat

GRAPH 9

FARM VALUE OF CROP PRODUCTION 1971 – 1990



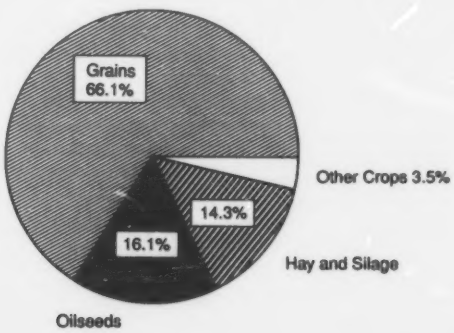
Datasource: Manitoba Agriculture

in the province in 1991 is expected to remain unchanged at 2 189 million hectares. Lower barley prices could encourage a nine percent decrease in the area of barley to 587 000 hectares in 1991. Plantings of flaxseed are expected to decrease to 263 000 hectares despite the anticipated increase in prices, but the canola acreage could increase by 46 percent to 526 000 hectares.

Manitoba is not only an important source of grains and oilseeds, but is a major area for the production of **special crops** in Canada. One of two major buckwheat-producing provinces, Manitoba supplied almost 55 percent of the Canadian crop in 1990 with an estimated value of $4.3 million. Manitoba's dry field pea production, valued at $14.5 million, was estimated at 28 percent of the national crop in 1990, while 37 percent of Canada's sugar beets, 19 percent of the lentils and seven percent of the mustard seed were produced in Manitoba. Overall, special crop plantings in 1991 (excluding corn) are expected to be 34 percent above the 1990 level, mainly due to the large increase in dry pea and lentil areas more than offsetting smaller areas of mustard seed, buckwheat and canary seed. Manitoba's grain corn area is expected to increase by 12 percent to 36 400 hectares in 1991.

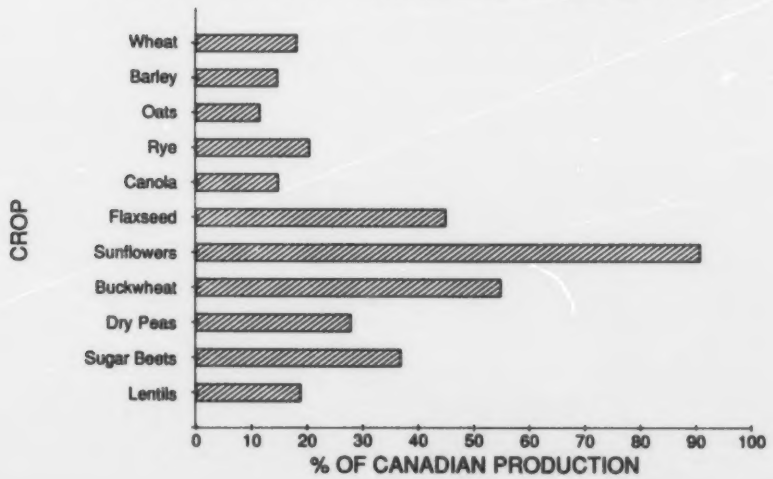
Manitoba's vegetable industry, although still relatively small compared to the major producing provinces of Ontario and British Columbia, has grown in importance over the years, particularly in terms of employment and import substitution. Manitoba had about 150 potato producers, 35 major vegetable producers and over 200 market gardeners who employed more than 2,000 full-time and seasonal farm workers in 1990. In 1990, potato and vegetable production was valued at $59 million, up from $50 million in 1989. In addition, the production of fruit, mushrooms, flowers, nursery products and sod in Manitoba amounted to almost $26 million in 1990.

GRAPH 10 **AREA OF CROPS PLANTED IN MANITOBA 1990**



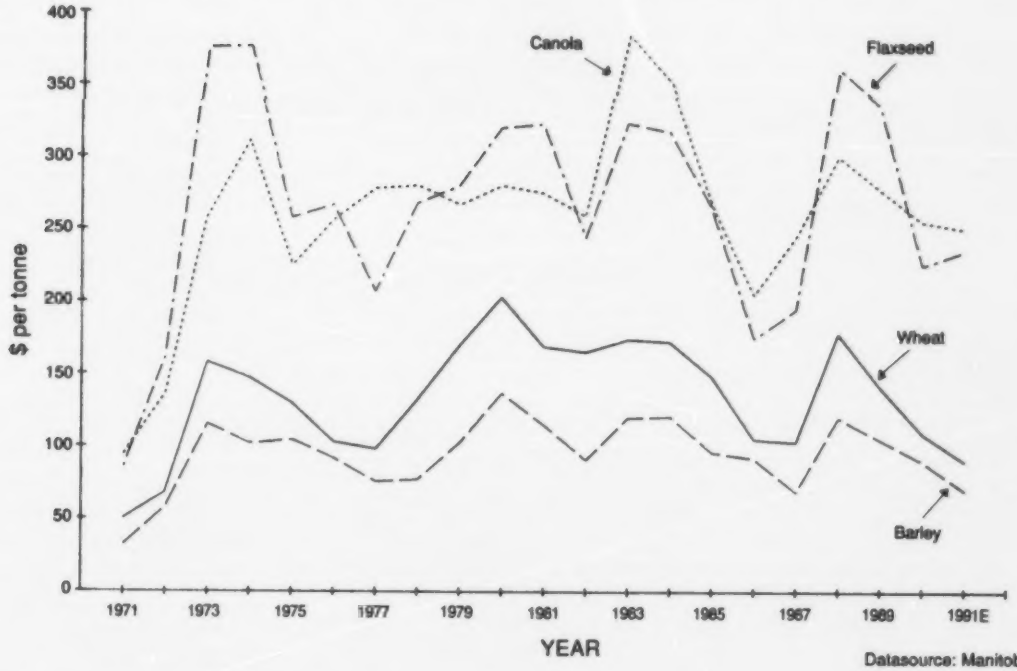
Datasource: Statistics Canada

GRAPH 11 **MANITOBA CROP PRODUCTION AS A PERCENT OF CANADIAN PRODUCTION 1990**



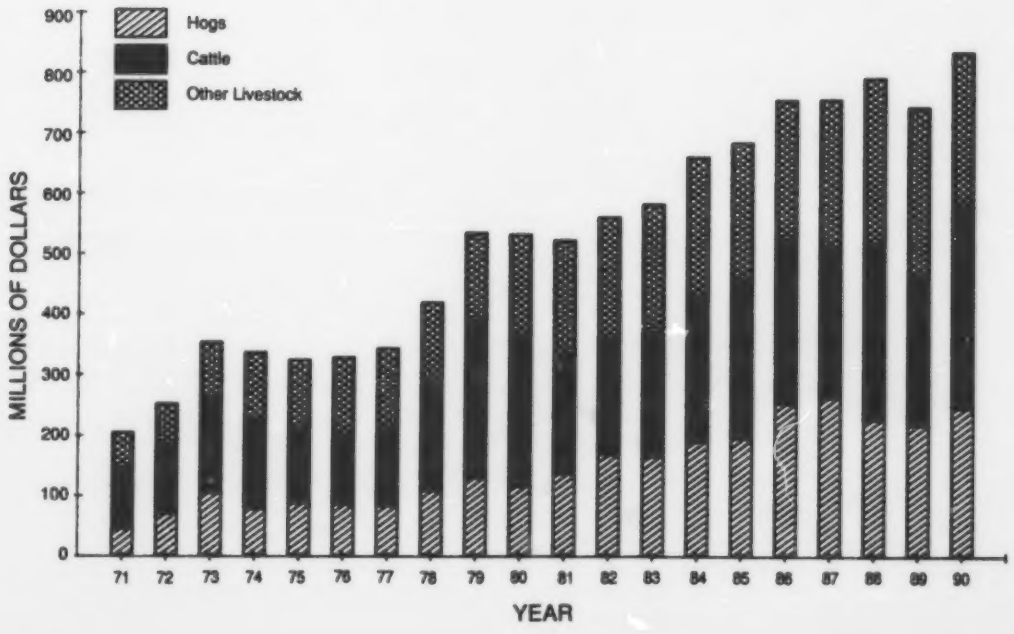
Datasource: Statistics Canada

GRAPH 12 PRICES OF SELECTED CROPS, 1971 – 1991



Datasource: Manitoba Agriculture

GRAPH 13 FARM VALUE OF LIVESTOCK PRODUCTION 1971-1990



Datasource: Manitoba Agriculture

LIVESTOCK

The livestock industry in Manitoba contributed 39.3 percent of the total farm cash receipts in 1990, up from 36.2 percent in 1989. Marketings of cattle and calves amounted to almost 35 percent of livestock *product value* and provided *13.7 percent of total 1990* farm cash receipts. This made beef the second largest farm commodity next to wheat.

The province has almost nine percent of all cattle and calves in Canada, 11 percent of the beef cows, almost five percent of the dairy cows, almost 12 percent of the hogs, three percent of the sheep and lambs, seven percent of the hens and chickens, nine percent of the turkeys, 95 percent of the geese, four percent of the ducks and over 11 percent of the egg production. As only four percent of Canada's population lives in Manitoba, the province is a surplus supplier of most livestock products.

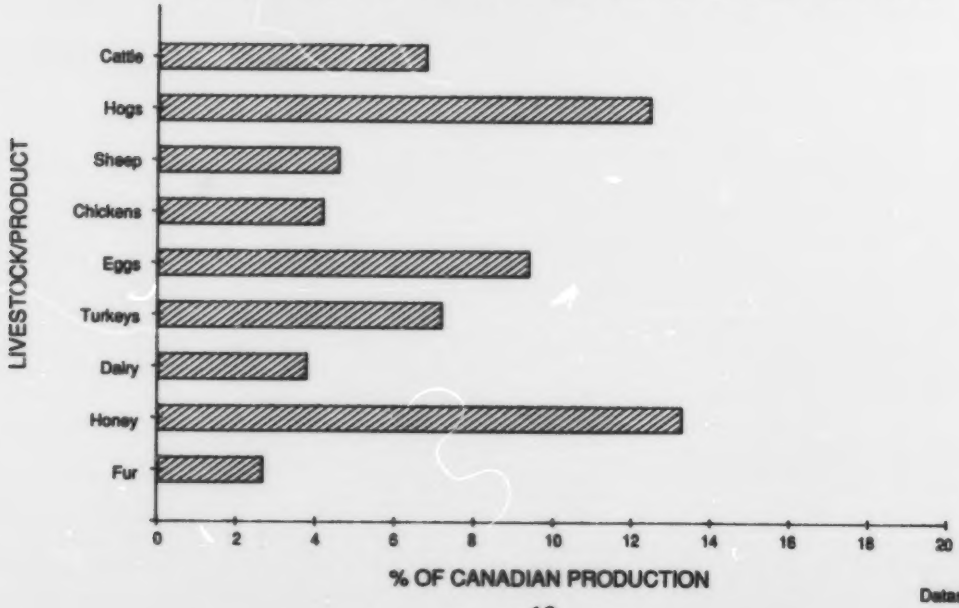
Prices for Manitoba's cattle and hogs are dependent on prices in the United States and, to a lesser extent, in eastern Canada. Thus local prices tend to be variable, depending on the supply and demand for red meats particularly in the major markets of the U.S., Ontario and Quebec. This situation, in the past, made management decisions difficult for local producers, who tended to suffer from price and income instability. The national tripartite stabilization plans have been introduced to help limit the effect of price fluctuations.

Declining North American per capita beef consumption (since the peak year of 1976), and variable profitability from beef production resulted in a decline in the Manitoba **cattle** herd from 1977 to 1987. Encouraged by higher calf prices since 1987, the beef cow herd increased slightly in 1988 and by over one percent in both 1989 and 1990. The total number of cattle slaughtered in Manitoba packing plants peaked at 581,000 head in 1976. Ten years later, slaughterings had declined to 380,900 head. The closing of Canada Packers' slaughter facility in April, 1987 and East-West Packers and Burns Meats plant closures in 1990 further reduced local slaughter capacity by about 80 percent. With increased sales of feeder cattle and calves to the United States, Alberta and Saskatchewan, Manitoba inspected slaughter fell by 37 percent to 241,600 head in 1987 and again by 24 percent to 183,300 head in 1988. In 1989 and 1990 only 125,800 and 92,310 cattle respectively were slaughtered in Manitoba. 1991 slaughterings are expected to decrease to about 70,000 head.

Manitoba **hog** marketings rose to 1,352,000 head in 1971, but decreased to 835,000 head in 1976. Price stabilization plans introduced since 1981 encouraged herd expansion and by 1990, Manitoba hog marketings had reached almost 2.0 million head with a value of $254 million. Manitoba's share of the Canadian hog market declined from 13 percent in 1971 to less than nine percent in 1982 as hog production shifted to the central Canadian provinces, particularly Quebec. However, by 1990, Manitoba's share of national slaughter was at 12 percent, down slightly from the 1989 level of 13 percent.

GRAPH 14

MANITOBA LIVESTOCK PRODUCTION AS A PERCENT OF CANADIAN PRODUCTION, 1990

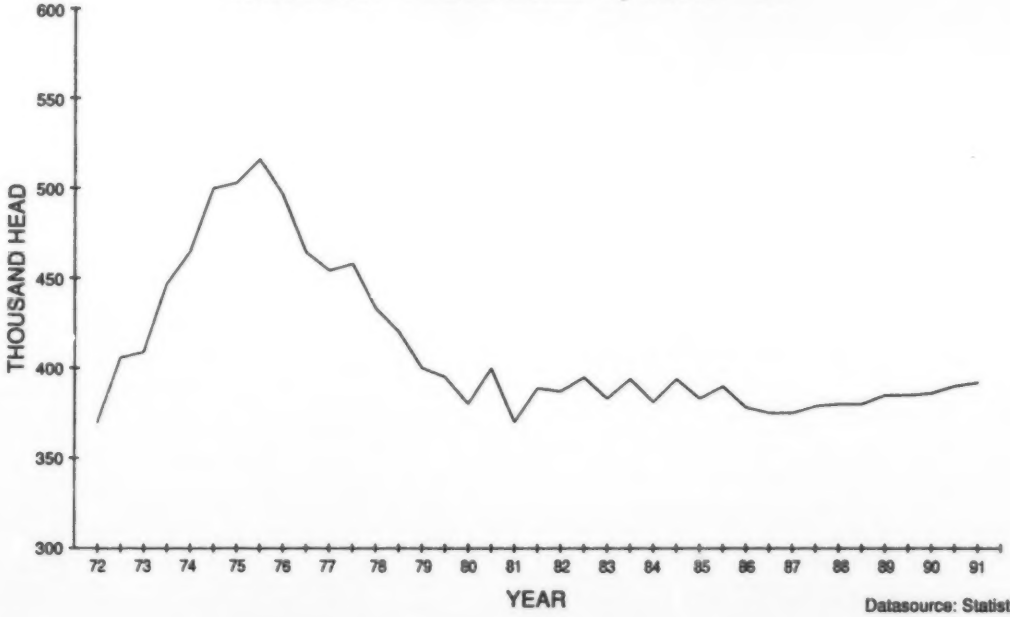


Datasource: Statistics Canada

The **sheep** industry is much smaller than that of cattle and hogs. The number of sheep on Manitoba farms peaked at 81,300 head in 1981, but had declined to 22,000 head by 1988. Increased interest in sheep production in 1989 and 1990 raised the provincial flock to 23,000 and 24,000 head respectively. Only about 25 percent of the lambs produced in Manitoba are slaughtered in provincial-inspected packing plants located in the province. A large number of producers sell their product privately to the consumer or through

GRAPH 15

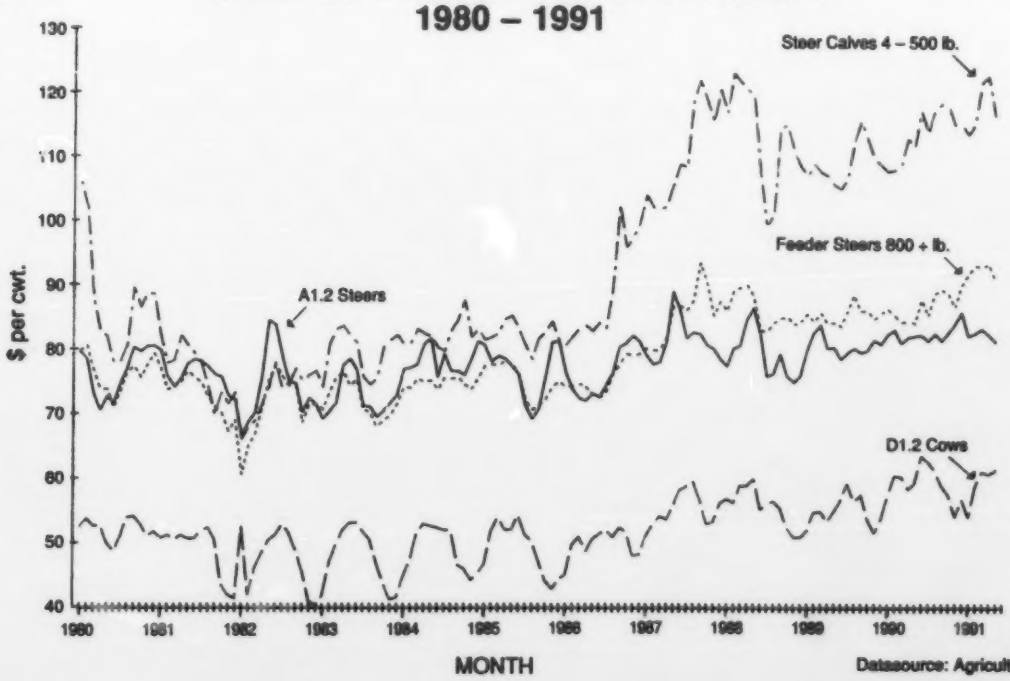
NUMBER OF BEEF COWS IN MANITOBA JANUARY 1 AND JULY 1, 1972 – 91



Datasource: Statistics Canada

GRAPH 16

WINNIPEG CATTLE PRICES BY MONTH 1980 – 1991



Datasource: Agriculture Canada

brokers to other provinces and the United States.

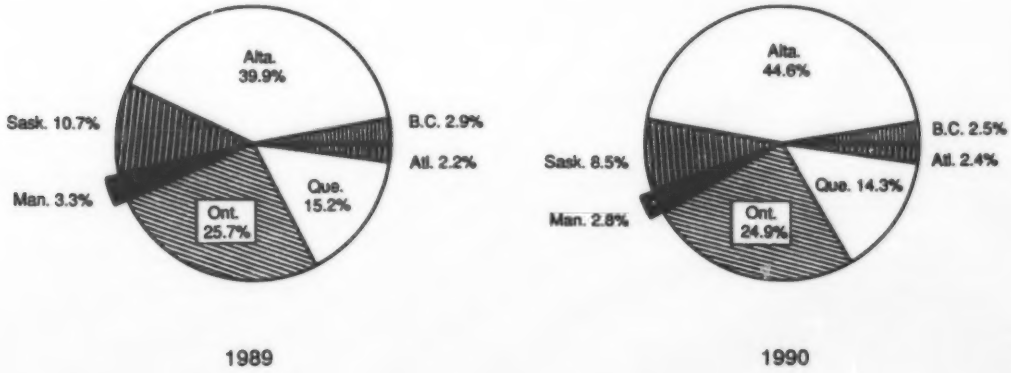
In 1990, Manitoba's 64,000 **dairy** cows produced milk and cream valued at $128.5 million (including supplementary payments). This was a decrease of 2.5 percent from the 1989 level.

Farm receipts for **chickens, turkeys and eggs** produced in the province amounted to $101.8 million in 1990, down by five percent from the previous year.

Manitoba farmers also produce such diverse commodities as honey, pheasants, fox and mink, ostriches, llamas, bison, rabbits and horses for P.M.U. and slaughter. The total value of sales of these products in 1990 was over $30 million.

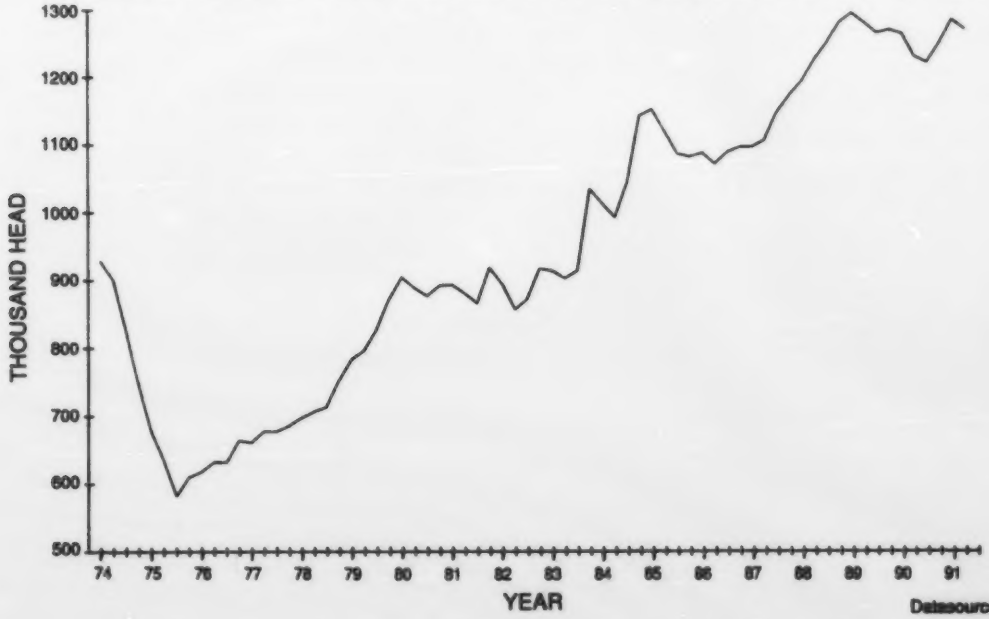
GRAPH 17

CATTLE SLAUGHTER BY PROVINCE OF ORIGIN, 1989 AND 1990



Datasource: Agriculture Canada

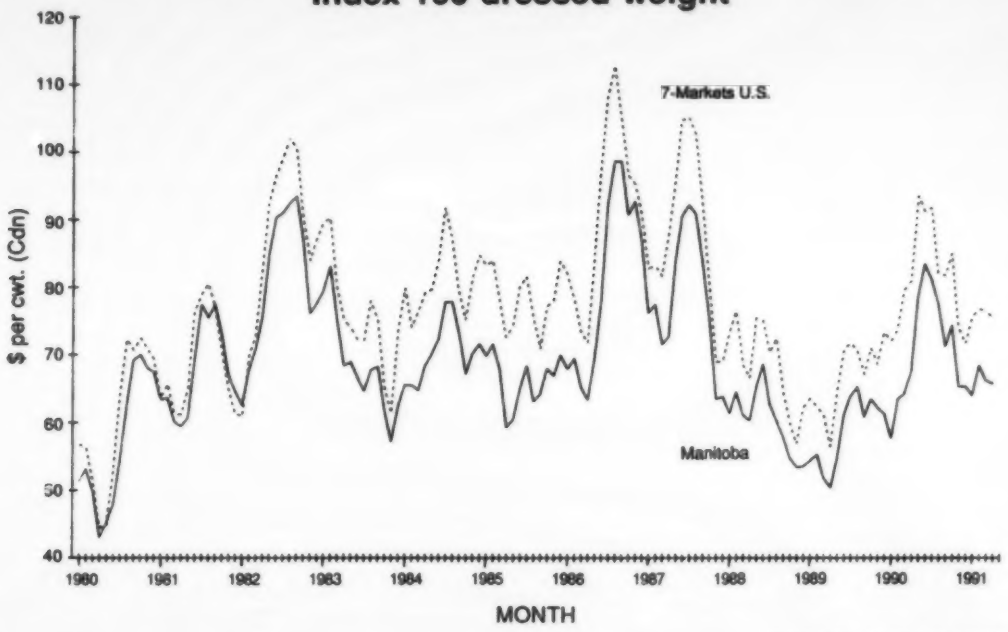
GRAPH 18 **MANITOBA HOGS ON FARMS BY QUARTER, 1974 – 91**



Datasource: Statistics Canada

GRAPH 19

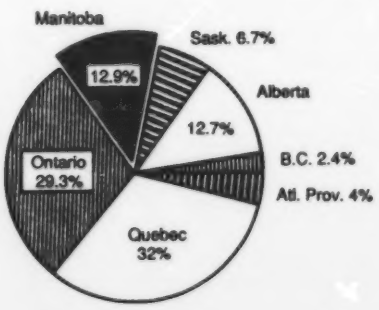
HOG PRICES BY MONTH, 1980 – 91
Index 100 dressed weight



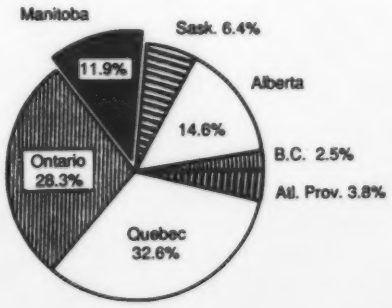
Datasource: Agriculture Canada and U.S.D.A.

GRAPH 20

HOG SLAUGHTER BY PROVINCE OF ORIGIN
1989 AND 1990



1989



1990

Datasource: Agriculture Canada

AGRICULTURAL TRADE

Manitoba's agricultural exports are shipped mainly in unprocessed or semi-processed states to other Canadian provinces and 107 countries. Manitoba uses about 12 percent of the wheat and almost 50 percent of the barley produced in the province, the remainder being exported to eastern Canadian markets or overseas. About 63 percent of Manitoba slaughter cattle and approximately 79 percent of the hogs marketed in 1990 were sent out of the province, either live or in a processed state. About 43 percent of the turkey, almost all the chicken and about 35 percent of the eggs produced in Manitoba in 1990 were consumed locally. More than three percent of Manitoba's eggs and egg products were exported to other countries, but most out-of-province shipments went to other Canadian provinces. Almost 90 percent of Manitoba geese were shipped to other provinces, Hong Kong, the United States and West Germany.

In 1990, $285 million of Manitoba livestock and livestock products were sent out of the country, while

FIGURE 1

MANITOBA EXPORTS OF AGRICULTURAL PRODUCTS AND FOOD, 1990

($ million)

Datasource: Statistics Canada

$930 million of processed and unprocessed grains, oilseeds and other crops were exported. Grain exports are one of the largest single sources of foreign exchange earnings for Canada.

Canada imported $119 million worth of cheese, $727 million of fresh vegetables, $275 million of processed vegetables, $505 million of cereal and bakery products, and $719 million of meat and meat products in 1990, much of which could have been produced in Canada and, possibly, Manitoba. However, in many instances, given the lower labour costs and better weather conditions in exporting countries, it may not be economically feasible to reduce imports of some foods, such as fresh vegetables in winter.

IMPACT OF AGRICULTURE ON THE PROVINCIAL ECONOMY

While the relative importance of primary agriculture in the provincial economy has varied significantly over the past ten years, the total economic impact of the agricultural industry has been positive.

CONTRIBUTION OF FOOD PROCESSING

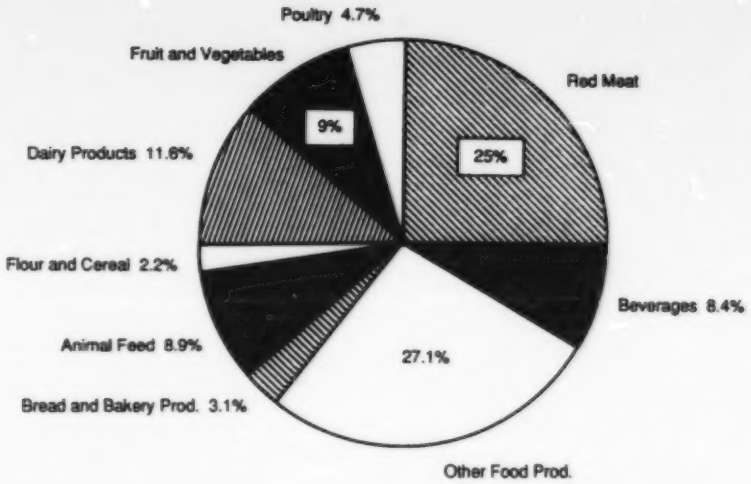
The food and beverage processing industry includes the slaughtering and/or processing of meat and poultry, fruit and vegetables, cereal products, dairy products, vegetable oils, feed, seed, sugar and beverages. It is the most important manufacturing industry in Manitoba, producing $2.04 billion of goods and services in 1988, or about 28 percent of the total manufacturing output in the province. In 1988, the food and beverage processing industry employed 8,109 administrative, production and related workers with wages of $216.6 million. Almost $1.5 billion worth of inputs went into the industry in 1988 and generated an added value of $518 million.

The largest sector, meat and poultry slaughtering and processing, employed 3,022 people with wages totalling $74 million in 1988. Principal raw inputs, cattle and hogs, account for about 80 percent of the meat processing industry's total cost of materials and supplies of $480 million. Ninety-four percent of the hogs and 81 percent of the cattle slaughtered in the province in 1990 originated in Manitoba. About 60 percent of the sector's output consists of fresh pork, while other processed meats comprise over 20 percent.

Technological changes in the production of processed meats are mainly responsible for the continuing rationalization of the meat packing industry. A hog slaughtering plant, built in Neepawa, began operations in October, 1986. Canada Packer's closed its slaughter plant in early 1987, which reduced Manitoba's cattle slaughter capacity by about 40 percent. Further reduction in cattle and hog slaughter capacity came in March, 1990 when East-West Packers was forced to close. Burns Meats closed its Brandon cattle slaughter and beef fabrication plant in November 1990. There has been some consolidation of turkey and chicken slaughterings as well as increased productivity in recent years. Manitoba continues to produce deboned turkey meat to supply part of the growing consumer demand for this product, particularly in

GRAPH 21

MANITOBA FOOD AND BEVERAGE PROCESSING INDUSTRY, 1988



Datasource: Statistics Canada

1988

Japan. Exports of turkey meat to Japan, U.S.A., Mexico, Austria and Haiti totalled 451 tonnes in 1990.

Other important Manitoba food processing sectors include dairy, bakery, animal feed, beverage and fruit and vegetable processing. The province's feed industry output was over $198 million, employing 599 administrative and production staff in 1988. Principal inputs for the industry are barley, wheat, meat meal, corn and canola meal. Much of the corn and canola meal produced in Manitoba is used locally by the feed industry. Soybean meal is imported from the United States.

Manitoba has two oilseed crushing plants. One is located at Altona, and the other at Harrowby on the Saskatchewan border. Almost all the sunflowerseed and canola crushed at Altona comes from Manitoba. Output from the plants includes bulk crude and refined oil, bulk vegetable oil, retail pack refined oil, hulls and screenings. About 85 to 90 percent of the total production from the Altona plant is marketed outside the province, primarily in central Canada. The plants reduced output during 1988 to 1990 because of reduced canola supplies, competition from the European Economic Community and increased competition from soyoil.

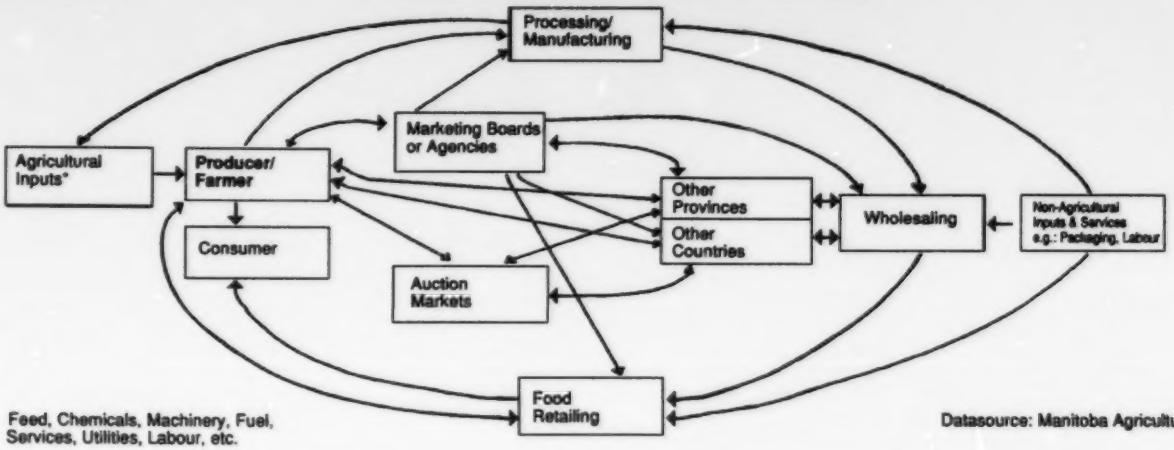
The Manitoba Sugar Company plant employs approximately 250 full- and part-time staff. The plant processes only Manitoba sugar beets, with the entire provincial crop produced under contract to the plant. In 1990, provincial sugar beet production amounted to 351 500 tonnes, an increase of seven percent from the 1989 crop. The plants primary product is granulated white sugar, marketed in either liquid or dry form as part of an extensive line of sugar products. In normal years, approximately 50 percent of the product is used directly by consumers, most of whom are in Manitoba. By-products include beet pulp and molasses used for livestock feed and industrial purposes, much of which is exported from the province.

The distillery at Gimli employs 84 people and uses about 38 100 tonnes (1.5 million bushels) of grain corn annually. Establishment of the plant at Gimli was based on the availability of high quality and abundant supplies of water and the use of Manitoba-grown grain corn. Between 1980 and 1984, Manitoba farmers supplied the bulk of the high quality corn required by the distillery. In 1985 and 1986 Manitoba grain corn production and quality was poor which resulted in virtually all the corn requirements for the distillery being met by U.S. suppliers. However, from 1988 to 1990 increased producer interest in growing corn resulted in a larger portion of the distillery corn requirements being met by Manitoba supplies.

CONTRIBUTION OF AGRICULTURAL INDUSTRIES

In 1988, there were 37 implement manufacturing companies directly associated with agriculture. The companies employed 1,952 workers, paid $54.3 million in wages and salaries and produced $275.9 million worth of equipment. In the manufacture of imple-

FIGURE 2 **MANITOBA AGRI-FOOD SYSTEM**



* Feed, Chemicals, Machinery, Fuel, Services, Utilities, Labour, etc.

Datasource: Manitoba Agriculture

ments, the companies in turn purchased $149.1 million in inputs and contributed $126.8 million in value added to the final product. The total value of this contribution to the provincial economy is not solely attributable to Manitoba agriculture. However, it nonetheless indicates the significance of this sub-unit to the agricultural sector of Manitoba's economy.

In addition to the 37 companies directly linked to agricultural equipment manufacturing, numerous firms are more indirectly associated with the agriculture equipment industry. These firms produce inputs for agriculture as a secondary output of their operation or as an input into a larger agricultural manufacturing operation. The total value of this contribution to the agriculture sector in 1986 was estimated at $140 million. The associated labour force was estimated at over 1,100.

In Manitoba, 394 licensed dealer establishments were selling farm machinery and associated equipment and providing service facilities in January, 1991. In addition, 143 licensed vendors supplied farm machinery and equipment repair parts to licensed dealers in the province. A number of unlicensed facilities provide repair services for farm equipment. Although statistics are not available on the total value of sales and servicing by this unit, it makes a further significant contribution to the agricultural sector of the economy.

CONTRIBUTION OF SERVICE SECTOR

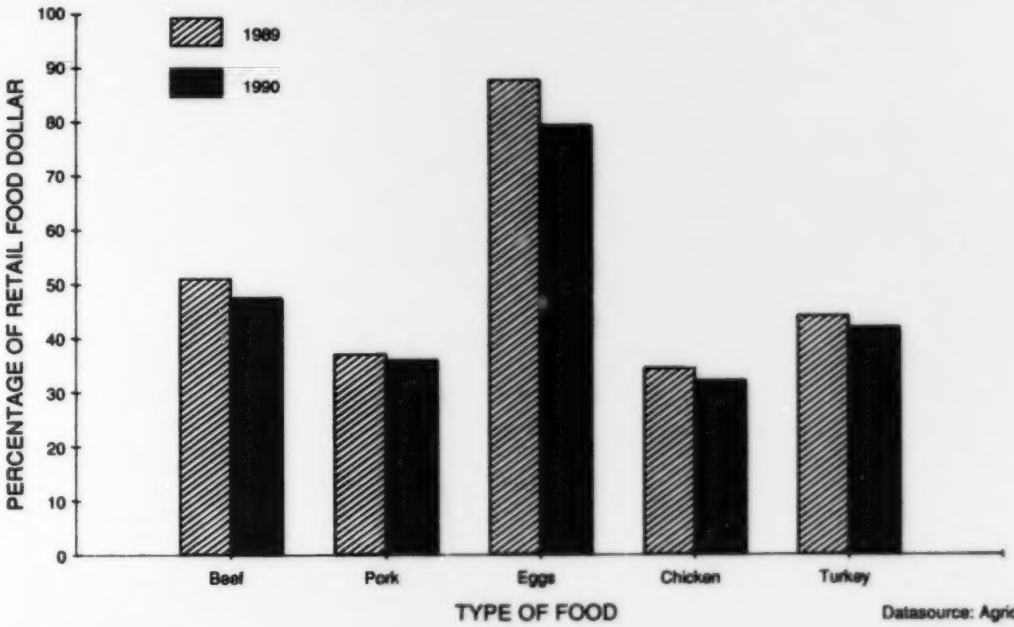
Manitoba agriculture depends on various service industries. These industries include transportation, construction, finance, insurance and real estate. An estimated six per cent of total provincial transportation expenditures involved the movement of agricultural products, raw or processed. About six per cent of Manitoba's construction takes place on farms or is for agriculture-related industries. Farm expenditures on financial, insurance or real estate services amounted to approximately 14 percent of total expenditures for these services. In addition, both federal and provincial governments provide farmers with services such as extension, regulatory, research, development, financial and infrastructural. Manitoba farms used 4.5 percent of the total electric power, 58 percent of the chemicals and 29 percent of total gasoline and fuel oil consumed in the province in 1990.

Although some of the food consumed by Manitobans is imported from other provinces or countries, over 50 percent of the food sold by Manitoba's grocery and other food stores is derived from products grown and processed in Manitoba. Thus, a portion of the retail margins from these stores can be included with agriculture's contribution to the provincial economy. In 1990, Manitoba's 1,475 grocery and other food stores had over $1.81 billion in total sales volume, an increase of 9 percent from the previous year. Gross margins and net profits amounted to about 20 percent ($360 million) and 1.2 percent ($22 million) respectively. It is estimated that 50 percent ($180 million) of value added to foods purchased by retailers, is an indirect contribution of Manitoba agriculture to the economy. Food wholesaling activities also contribute to the economy.

For livestock products such as beef, pork, chicken, turkey and eggs, approximately 30 to 80 percent of the consumers' food dollar goes to the livestock producer, depending on the extent of the processing and merchandising required for each commodity. An egg producer received over 80 percent of the retail price of eggs in 1990, while a broiler chicken producer received about 32 percent of the amount a consumer pays for chicken. Processing and merchandising costs and wastage are greater for chicken than for eggs.

GRAPH 22

MANITOBA FARMERS' SHARE OF RETAIL PRICE OF FOOD, 1989 AND 1990



Datasource: Agriculture Canada

TOTAL IMPACT OF AGRICULTURE

One measure of provincial output is the Gross Domestic Product at factor cost, basically an aggregate of net profits and incomes, including wages, depreciation and investment income. Agriculture's direct contribution to the GDP increased to 10.4 percent in 1973, but declined to 7.8 percent in 1976, 7.2 percent in 1981, 6.9 percent in 1982 and 4.6 percent in 1983. Net farm income improved and primary agriculture's contribution to the GDP rose to 6.4 percent in 1984 and to 7.2 percent in 1985, but declined to 5.4 percent in 1986. Despite increased government assistance, particularly to grain producers, the contribution to the GDP further declined to 5.3 percent in 1987, 5.1 percent in 1988, 4.9 percent in 1989 and 4.8 percent in 1990. Without government assistance, the contribution in 1987 and 1988 would have been 2.6 and 3.3 percent respectively, while in 1989 and 1990, the contribution was 3.2 percent and an estimated 4.4 percent.

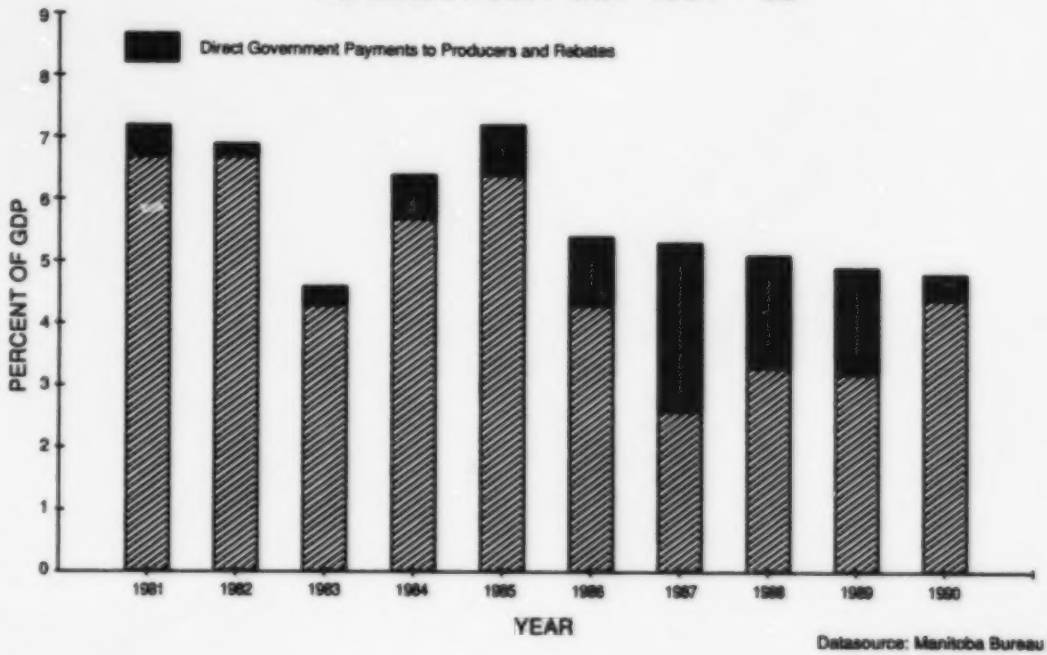
Agriculture also makes an indirect contribution to the provincial economy through income derived from agriculture-connected industries. These include the food processing industry, industries which supply inputs to agriculture, as well as wholesale, retail and other service sector components which supply services to farmers and agriculture-related workers. When agriculture's indirect contribution to the GDP was added to its direct contribution, an estimated 11.1 percent of Manitoba's GDP was attributed to agriculture in 1990 compared to 12.0 percent in 1989 and 12.8 percent in 1988. For every dollar of net income produced by primary agriculture in Manitoba, $1.71 is generated in the overall Manitoba economy. Agricul-

ture, directly or indirectly, accounted for about one dollar in nine of production in Manitoba's economy in 1990.

Another method of assessing agriculture's impact on Manitoba's economy is to compare the added value for agricultural inputs to that for the goods producing sector as a whole. In 1990, 18.1 percent of total added value was provided by agriculture compared with 17.1 percent a year earlier.

In 1990, 39,000 persons were directly employed in Manitoba agriculture. In addition, about 21,600 persons were employed in other areas of the provincial economy as a direct result of the agricultural industry, bringing total employment generated by agriculture to 12.0 percent of Manitoba's labour force in 1990. This means that about one job in eight was the result of agricultural production. For every two jobs created on farms in 1990, almost one job would be created in other areas of the Manitoba economy. In addition to stimulating employment locally, agriculture in Manitoba is directly responsible for thousands of jobs in other parts of Canada.

GRAPH 23 **CONTRIBUTION OF PRIMARY AGRICULTURE TO MANITOBA GDP 1981 – 90**



Datasource: Manitoba Bureau of Statistics